

## CHAPTER 14

### SHORE PROTECTION

(NOTE: Storm damage reduction policies are currently undergoing Administration/Congressional review, and the policies in this chapter will be updated when this review is completed).

#### 14-1. Beach Erosion Control.

a. Federal Interest. Before 1930, Federal interest in shore erosion problems was limited to the protection of Federal property and improvements for navigation. At that time, an advisory "Board on Sand Movement and Beach Erosion" appointed by the Chief of Engineers was the principal instrumentality of the Federal Government in this field. The need for a central agency to assemble data and provide engineering expertise regarding coastal protection was recognized by Congress with creation of the Beach Erosion Board authorized by Section 2 of the River and Harbor Act approved 3 July 1930 (Public Law 520, 71st Congress, 33 U.S.C. 426). The board was empowered to make studies of beach erosion problems at the request of, and in cooperation with cities, counties, or states. The Federal Government bore up to half the cost of each study but did not bear any construction costs unless Federally-owned property was involved. An Act of Congress approved 13 August 1946 (Public Law 727, 79th Congress) established a policy of Federal aid in construction costs where projects protected publicly-owned shores. An Act approved 28 July 1956 (Public Law 826, 84th Congress) amended that basic beach erosion legislation to authorize Federal participation in the protection of private property if such protection was incidental to the protection of publicly owned shores, or if such protection would result in public benefits. The River and Harbor Act of 1962 (Public Law 87-874) increased the proportion of construction costs borne by the Federal Government and made the total cost of studies a Federal responsibility. An Act approved 7 November 1963 (Public Law 88-172) abolished the Beach Erosion Board, transferred its review functions to the Board of Engineers for Rivers and Harbors, and established the Coastal Engineering Research Center. The Water Resources Development Act (WRDA) of 1986 (Public Law 99-662) recognizes hurricane and storm damage reduction (HSDR) and/or recreation as the primary purposes of beach erosion control (BEC) projects, alters the proportion of construction costs that may be borne by the Federal Government, and reduces the Federal cost participation in feasibility studies to 50 percent. (ER 1165-2-130)

b. Definitions. Under existing shore protection laws Congress has authorized Federal participation in the cost of restoring and protecting the shores of the United States, its territories and possessions. The intent of this legislation is to prevent or control shore erosion in order to reduce damage to upland developments caused by wind- and tidal-generated waves and currents along the Nation's coasts and shores, and lakes, estuaries, and bays directly connected therewith. Such adverse effect extends only the distance up tributary streams where it can be demonstrated that the dominant causes of erosion are ocean tidal action (or Gulf of Mexico and Great Lakes water motion) and wind-generated waves. Shore protection legislation does not authorize correction of erosion at upstream locations caused by stream flows. Shore or beach erosion is primarily the result of persistent littoral processes and by the battering action of waves occurring during storms. Shore or beach erosion damages include both losses to upland development--land and structures--and losses of

recreational uses (however, see paragraph 14-2). The mitigation of shore erosion caused by Federal navigation works is discussed in paragraph 12-25.

(1) Restoration and Protection. The term "restoration" was substituted for "improvement" in the amendment of July 28, 1956 (Public Law 826, 84th Congress, 70 Stat. 702) so that the basis for Federal concern became "restoration and protection" as opposed to creation of new lands (House Report No. 2544 and Senate Report No. 2691, 84th Congress). Accordingly, Federal participation in restoration is limited to the historic shoreline. It does not provide for Federal cost sharing in extending a beach beyond its historic shoreline unless required for protection of upland areas.

(2) Public Use. The term "public use", particularly of private property, means recreational use by all on equal terms and open to all regardless of origin or home area. Prohibited is any device for limitation of use to specific segments of population, such as local residents, or similar restrictions on outside visitors, directly or indirectly. This definition allows a reasonable beach entrance fee, uniformly applied to all, for use in payment of local project costs. Normal charges made by concessionaires and municipalities for use of facilities such as bridges, parking areas, bath houses and umbrellas are not construed as a charge for the use of the Federal beach project, as long as they are commensurate with the value of the service they provide and return only a reasonable profit. Fees for such services must be applied uniformly to all concerned and not as a prerequisite to beach use. Lack of sufficient parking facilities for the general public (including non-resident users) located reasonably near and accessible to the project beaches or lack of public pedestrian rights-of-way to the beaches at suitable intervals would constitute de facto restriction on public access and use of such beaches, thereby precluding eligibility for Federal assistance.

(3) Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R) for Beachfills. The following definitions apply for OMRR&R for beach fills which are recommended for authorization with continuing Federal construction participation in periodic nourishment. It is recognized that the non-Federal responsibilities at existing projects may vary from these definitions. Also, these definitions do not deal with hardened structures (e.g., groins, bulkheads, sea walls, and revetments) which may be features of shore protection projects. For projects constructed since enactment of WRDA 1986, the non-Federal sponsor is responsible for all activities related to the OMRR&R of hardened structures, including terminal groins which may be included in beach fill projects. There is no Federal continuing construction responsibility associated with hardened structures.

(a) Operations. This is the non-Federal sponsor's continuing oversight activities to assure that the beach design section provides storm damage reduction and promotes and encourages safe and healthful public enjoyment of the recreational opportunities provided by the beach fill. Operation activities include protection of dunes, prevention of encroachments, monitoring of beach design section conditions, provision of life guards and beach patrols, and trash collection (see ER 1110-2-2902 for more details). Operations are a non-Federal sponsor responsibility and there is no Federal financial participation in operations activities.

(b) Maintenance, Repair, Replacement, and Rehabilitation. For beach fill there is, generally, no meaningful distinction between maintenance, repair, replacement, and rehabilitation. A beach fill project is designed to provide a certain level of erosion and storm surge protection to landward facilities through the sacrifice of project fill material. The protection provided depends on the crown elevation and the amount and characteristics of sacrificial sand maintained within the project design section. The project function depends on maintenance of the horizontal and vertical dimensions of the project design section. Preservation of this design section can be achieved through a combination of the following activities which generally describe the non-Federal sponsor responsibility for maintenance, repair, replacement, and rehabilitation under the terms of the project cooperation agreement (PCA):

(1) Grading and shaping the beach and dune using sand within the project design section.

(2) Maintenance of dune vegetation, sand fencing and dune cross-overs.

(c) Continuing Project Construction (Periodic Nourishment). The following activities may be classified as continuing project construction and may be shared as periodic nourishment under the terms of the PCA:

(1) Placement of additional sand fill to restore an advanced nourishment berm.

(2) Placement of additional sand fill on the project to restore the design section.

c. Cost Sharing. Federal participation in shore protection projects (excluding HSDR projects designed to protect against storm wave action and/or tidal inundation only without providing any shoreline protection and/or beach erosion control) is based on shoreline ownership, shore use, and type and incidence of benefits. Non-Federal interests are responsible for providing all lands, easements, rights-of-way, relocations and dredged material disposal areas (LERRD). The non-Federal costs for LERRD are credited against the sponsor's total responsibility for sharing construction costs (determined as a weighted percentage), and any excess LERRD costs will be reimbursed to the sponsor after initial project construction is completed. Lands, easements, and rights-of-way (LER) needed for the placement of shore protection project features that prevent the loss of the land itself have no value for crediting purposes since such land is lost in the absence of the project. However, the real estate market may not reflect this and a non-Federal project sponsor may in fact incur costs in acquiring requisite interests. Accordingly, a non-Federal sponsor will be credited for actual costs or for the net reduction in total market valuation of the parcels (from which interests for the project must be drawn) assuming no Federal project compared to assuming the project is in place (i.e., including consideration of special benefits to the property owners), whichever is least. Non-Federal interests must pay 100 percent of the OMRR&R) costs assigned to non-Federal shores.

(1) Federal Shores. Costs assigned to protection of Federally-owned lands and shore are 100 percent Federal if the Federal agency owning the land and shore requests protection. It is

inappropriate that projects wholly for protection of Federal lands (for example, military installations and National Park Service lands) compete for funding under the Corps civil works program in with studies and projects requested by non-Federal public agencies. The Corps should not be placed in the position of defending the programs of another Federal agency before the Office of Management and Budget and the Congress. Costs or work specifically to protect lands controlled by another Federal agency will usually be borne by that agency. The Corps will accomplish such work on a reimbursable basis upon request (See Chapter 23). An exception would be a case wherein the lands in question involve only a minor, but integral, part of the overall protection frontage. In such a case, protection would be included to assure a complete overall project, with the related costs assigned as 100 percent Federal. If, upon request, funding could not be obtained from the Federal agency concerned, this segment of the project would be funded from project appropriations. Another exception would be a case where the other Federal agency lands comprise part of the alignment of the least cost plan for providing protection.

(2) Non-Federal Shores.

(a) Privately Owned and Used. Costs assigned to privately-owned undeveloped lands and to developed lands where the use of the shore is limited to private interests are 100 percent non-Federal. Federal aid to private shores owned by beach clubs and hotels is incompatible with the intent of Public Law 84-826. Actual use of their beaches is subject to the limitation of club membership or to being a guest at the hotels, even though the clubs or hotels may indicate that membership or guest privileges are open to all on equal terms. Usually, these establishments are operated for private profit or to restrict beach use. They exclude all members of the general public except for membership or paying guests. It is considered that their facilities, including parking facilities therefor, are not open to the general public. However, protection of such private shores may sometimes be included when determined essential to a complete overall project. The related costs would be assigned, 100 percent, to the non-Federal project sponsor. If the upland part of a segment of beach is privately owned and used, that segment will be assigned 100 non-Federal responsibility for project work, both below and above the mean high tide line.

(b) Privately Owned and Publicly Used. Costs assigned to prevention of damage to privately-owned developed lands, where use of the shore meets criteria for public use, are 35 percent non-Federal.

(c) Publicly Owned and Used. Costs assigned to non-Federal public lands and shores used for parks and recreation purposes are 50 percent non-Federal. In the case of non-Federal public lands developed for other purposes and subject to hurricane or storm damages, the assigned costs may be 35 percent non-Federal.

(3) Shores Combining Categories. Where a shore protection project encompasses more than one category of ownership and use, the non-Federal share of project costs will ordinarily be expressed as a composite percentage of total project costs derived by weighting the appropriate cost sharing percentages for the given categories (as above) by the linear feet of project shoreline within those categories. This is where the initial construction costs are reasonably uniform for the entire project; where they are not, the project shoreline will be first subdivided into segments that are

relatively uniform in costs and a weighted percentage calculated from the total costs, from all segments, assigned to each category.

d. Periodic Nourishment. No Federal contribution toward maintenance of a shore protection project is authorized. However, the Act of 1956 (Public Law 84-826) provides that Federal participation may be made toward periodic beach nourishment when it is found to comprise a more suitable and economical remedial measure for shore protection than retaining structures such as groins. Periodic nourishment (if not specifically authorized on another basis) is to be considered "construction" for funding and cost-sharing purposes. Corps participation in periodic beach nourishment (sand replacement) is limited to the period specified in authorizing documents. Section 934 of WRDA 1986 allows extension of the authorized period to 50 years from the date of initiation of construction, if it is determined that, based on current evaluation guidelines and policies, the existing project is economically justified. Preauthorization reports will generally recommend Federal assistance in periodic nourishment for the economic life of the project. Nourishment costs will be shared in the same percentages as initial project installation costs were shared.

(1) Replacement of Dunes. Prior to WRDA 1986, many shore protection projects were formulated with two separate purposes: BEC and HSDR. Different cost sharing and local cooperation requirements applied to these two purposes. Beach berms were generally cost shared as erosion protection measures. The Federal Government participated in periodic nourishment. Protective dunes, on the other hand, were cost shared as HSDR features based on their use for storm surge and wave damage protection. The local sponsor was responsible for all OMRR&R, including placement of additional sand to restore the dune section. WRDA 1986 established the single unified purpose of HSDR. Accordingly, where protective dunes are included as part of the HSDR project, the Corps will recommend authorization for continued Federal participation in periodic nourishment of the protective dune. The rationale for this policy is that the protective dune, along with the protective beach, is part of the sacrificial storm damage reduction system where loss of material from the system is anticipated. The replacement of dune vegetation following periodic nourishment and replacement of dune cross-overs, however, is a non-Federal responsibility. This policy does not extend to HSDR levees which do not function as sacrificial systems, or to hard features (e.g., groins, revetments, seawalls). Also the non-Federal sponsor has sole responsibility for maintenance, including maintenance of dune vegetation, sand fencing, and grading and reshaping the dune to the design section with available material.

(2) Recognition of Costs in Non-Federal Sponsor Financing Plan. The continuing requirement for periodic nourishment for beach fill projects must be reflected in the schedule of estimated Federal and non-Federal expenditures. This schedule is furnished to the non-Federal sponsor to prepare the sponsor's financing plan and statement of financial capability. The assessment of the non-Federal sponsor's financial capability must include a demonstration of the sponsor's capability to meet its share of periodic nourishment costs. The sponsor must also understand that, while an "average" periodic nourishment cycle is estimated, the need for periodic nourishment is most often associated with replacement of erosive losses that occur during storm periods. Therefore, the local sponsor should demonstrate the financial capability to respond quickly to periodic nourishment requirements. This may involve establishing a contingency fund or emergency response account.

e. Project Formulation. Shore protection projects are formulated to provide for hurricane and storm damage reduction. On this basis any enhancement of recreation that may also result is considered incidental. Such recreation benefits are NED benefits, however, and are included in the economic analysis. Additional beach fill, beyond that needed to achieve the hurricane and storm damage reduction purpose, to better satisfy recreation demand would be a separable recreation feature requiring separable 50-50 cost sharing.

14-2. Recreation. Shore protection projects (particularly those featuring beachfill) are innately conducive to beach and shoreline recreation activities. Provided that hurricane and storm damage reduction benefits combined with incidentally generated recreation benefits limited to an amount equal to the hurricane and storm damage reduction benefits are sufficient in themselves for economic justification, the Corps will propose undertaking the project as a HSDR project (all recreation benefits are included in computation of the overall benefit-cost ratio). If, in this limiting initial evaluation, a greater amount of recreation benefits is required to be combined with hurricane and storm damage reduction benefits in order to demonstrate economic justification, the project is characterized as being primarily for recreation. As such, it will not be proposed by the Corps as a Federal undertaking, since recreation developments are not accorded priority in Civil Works budget decisions. For the same reason, separable recreation elements in a shore protection project will not be recommended.

14-3. Hurricane and Abnormal Tidal Flood Protection.

a. Federal Interest. Before enactment of WRDA 1986 (Public Law 99-662), Federal interest in projects to protect against hurricane and abnormal tidal flooding was established case-by-case based on specific Congressional authorizations for Corps construction of such projects. Although project works were usually similar to beach erosion control works, hurricane protection projects were viewed as being more like flood control projects. The 1986 Act, however, authorizes Federal participation in HSDR projects and establishes cost sharing for that category of projects. WRDA 1988 prohibits expenditure of Federal funds on construction of HSDR projects unless the community in which the project is located is then participating in the National Flood Insurance Program (NFIP). Other than the magnitude of storms considered there are now no real distinctions between shore protection measures for hurricane, storm or tidal induced flooding and erosion. (ER 1165-2-130)

b. Definition. Hurricane and tidal flooding result from abnormal rises in tidal levels due to storms and from the in-rush of waters as a result of waves.

c. Cost Sharing. Federal participation in HSDR projects is usually determined in the same way as for beach erosion control projects--based on shoreline ownership, shore use, and type and incidence of benefits as covered in paragraph 14-1.c. In the event a HSDR project, in whole or part, provides protection from storm wave action and/or tidal inundation only without providing any shoreline protection and/or beach erosion control, construction costs are usually 65 percent Federal, unless the lands protected are Federal, in which case construction costs are usually 100 percent Federal.

14-4. Lake Flood Protection.

a. Federal Interest. The extent of Federal interest in projects to protect against lake flooding (e.g., the Great Lakes) is not explicitly defined by legislation. Congressional authorizations for Corps construction of such projects on a case-by-case basis (e.g., Great Salt Lake, Utah) is establishing the Federal concern.

b. Definition. Lake flooding results from storm-induced inundation superimposed on the ordinary fluctuation of the lake level, or inundation from abnormal rises in static water level due to climatological changes (e.g., extended periods of abnormal precipitation, temperatures and/or humidity) or tectonic changes.

14-5. Evaluation. Shore protection projects may derive economic benefits from HSDR, land losses prevented, and increased recreation values. Benefits are measured as the differences in these values under conditions expected with and without the project.

14-6. Project Cooperation.

a. Project Sponsor. Formal assurances of project cooperation must be furnished by a municipality or public agency fully authorized under state laws to give such assurances and financially capable of fulfilling all measures of project cooperation.

b. Requirements. Project cooperation requirements for all types of shore protection projects (e.g., HSDR, BEC) are the same. The sponsor must agree to:

(1) Provide to the United States all necessary LERRDs determined by the Government to be necessary for the construction (including periodic nourishment), OMRR&R of the project.

(2) Provide or pay to the United States the cost of providing all retaining dikes, waste weirs, bulkheads, and embankments, including all monitoring features and stilling basins, that may be required at any dredged or excavated material disposal areas required for the construction (including periodic nourishment), and OMRR&R of the project.

(3) Contribute in cash, during project construction, the appropriate percentage of project construction cost, the percentage to be in accordance with existing law and based on shore ownership and use at the time of implementation, provided that credit will be given for the value of LERRDs.

(4) Contribute in cash the appropriate percent of the cost of periodic nourishment, where and to the extent applicable (up to 50 years), as required to serve the intended purpose(s).

(5) Hold and save the United States free from all damages arising from the construction (including periodic nourishment), and OMRR&R of the project and any project related betterments, except for damages due to the fault or negligence of the United States or its contractors.

(6) OMRR&R the completed project, or functional portion of the project, at no cost to the United States in accordance with applicable

Federal and state laws and specific direction prescribed by the United States.

(7) Grant the United States the right to enter, at reasonable times and in a reasonable manner, upon land which the local sponsor owns or controls for access to the project for the purpose of inspection, and, if necessary, for the purpose of completing, operating, maintaining, repairing, replacing, or rehabilitating the project.

(8) Maintain public ownership and public use of the shore upon which the amount of Federal participation is based for so long as the project remains authorized.

(9) Provide and maintain necessary access roads, parking areas, and other public use facilities open and available to all on equal terms.

(10) Keep and maintain books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to the project to the extent and in such detail as will properly reflect total project costs.

(11) Perform, or cause to be performed, such investigations for hazardous substances as are determined necessary to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. 9601-9675, on all lands necessary for project construction, and OMRR&R.

(12) To the maximum extent practicable, OMRR&R the project in a manner that will not cause liability to arise under CERCLA.

(13) Assume complete financial responsibility for all necessary cleanup and response costs of any CERCLA regulated materials located on any lands necessary for the construction, and OMRR&R of the project.

(14) Comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended by Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17), and the Uniform Regulations contained in 49 CFR 24 Part 24, in acquiring lands, easements, and rights-of-way, and performing relocations for construction, and OMRR&R of the project, and inform all affected persons of applicable benefits, policies, and procedures in connection with said Act.

(15) Comply with all applicable Federal and state laws and regulations, including Section 601 of the Civil Rights Act of 1964, Public Law 88-352, and Department of Defense Directive 5500.11 issued pursuant thereto as well as Army Regulation 600-7, entitled Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army.

(16) Publicize floodplain information in the area concerned and provide this information to zoning and other regulatory agencies for their guidance and leadership in preventing unwise future development in the flood plain and in adopting such regulations as may be necessary to prevent unwise future development and ensure compatibility with protection levels provided by the project.

(17) At least annually notify affected interests of the limitations of the protection afforded by the project.

(18) Participate in and comply with applicable Federal flood plain management and flood insurance programs, and, for any project for HSDR, prepare a flood plain management plan (FPMP) designed to reduce the impacts of future flood events in the project area within one year of signing a project cooperation agreement (PCA), and implement such plan not later than one year after completion of construction of the project.

(19) Prevent future encroachments which might interfere with proper functioning of the project.

(20) Specific cases may also warrant assigning other additional local responsibilities, such as providing appurtenant facilities required for realization of recreational benefits.

14-7. Technical and Engineering Assistance on Shore Erosion. Section 55 of 1974 (Public Law 93-251) authorizes the Secretary of the Army, acting through the Chief of Engineers, to provide technical and engineering assistance to non-Federal public interests in developing structural and nonstructural methods of preventing damages attributable to shore and streambank erosion.

14-8. Emergency Protection.

a. Section 14 of the Flood Control Act of 1946 (Public Law 79-526), as amended. Provides authority for the Secretary of the Army to undertake emergency measures to prevent erosion damages to endangered highways, public works, and non-profit public facilities (paragraph 15-3). (ER 1105-2-100)

b. Section 5 of the Flood Control Act of 1941 (Public Law 72-228), as amended. Provides authority to provide emergency protection of Federally-authorized and constructed hurricane and shore protection works being threatened; and to repair and restore, at 100 percent Federal cost, Federally-authorized and constructed hurricane or shore protection structures damaged or destroyed by wind, wave, or water action of other than an ordinary nature when, in the discretion of the Chief of Engineers, such repair and restoration is warranted for the adequate functioning of the structure. (ER 500-1-1) Conditions under which the Corps will repair and rehabilitate beach fills, and the limitations of the work that will be undertaken, are set forth in the following paragraphs.

(1) Completed Project. To be eligible for Section 5 funds, a beach fill project must be completed or must be a completed functional element of a larger project. A beach fill project or functional element is considered to be complete when it has been formally transferred to the non-Federal sponsor for OMRR&R. Public Law 84-99 funds will not be used for uncompleted projects that are eroded by storm events before they are formally transferred to the non-Federal sponsor. Uncompleted projects that are eroded by storm events before they are formally transferred to the non-Federal sponsor will be restored to their design dimensions using Construction, General, funds. Costs will be shared by the non-Federal sponsor as project construction costs under the terms of the PCA.

(2) Extraordinary Storm. To be eligible for use of Section 5 funds, a beach fill project must be substantially eroded by wind, wave, or water action of other than an ordinary nature. It is difficult to precisely define an "extraordinary" storm. Therefore, the determination of whether a storm qualifies as extraordinary will be made by the Director of Civil Works in consultation with the Assistant Secretary of the Army for Civil Works (ASA(CW)). The severity of the storm will be discussed in the Project Information Report which accompanies the Project Approval/Funding Request to the Director of Civil Works. The report should include a description of the damaging storm(s) in relation to established parameters for coastal storms including shoreline recession, storm surge elevation and duration, wave height, and wave interval. To the extent possible a frequency should be estimated for these parameters to provide a basis to assess the storm's severity. A description of the storm in relation to established classification systems should also be presented.

(3) Adequate Functioning. Under the provisions of Section 5, as amended, and existing policy implementing the legislation (ER 500-1-1), funds are to be used to restore adequate functioning of the structure for storm damage protection. For a beach fill project, the degree of project restoration eligible for funding under Section 5 versus periodic nourishment to be accomplished under the terms of the PCA will be decided on a case-by-case basis by the Director of Civil Works in conjunction with the ASA(CW). The need for funding under Section 5 will be based on an assessment of the risk to life and property and the need for immediate action. In no case, however, will a beach fill project be restored with Section 5 funds beyond its pre-storm condition. Considerations in making the assessment on degree of restoration required will be discussed in the Project Information Report and include the following:

(a) Pre-Storm Conditions. The pre-storm condition of the project must be described. A beach fill project is designed to a certain level of erosion protection. In some cases, particularly where a protective dune is included, it also provides storm surge and wave damage protection. These design parameters are generally expressed as a frequency or probability. The pre-storm condition of the project with respect to its ability to meet its design parameters should be described. If the pre-storm condition of the project was not at a level that would have provided the design level of erosion, storm surge, or wave protection, the volume of material in the pre-storm condition needed to restore a project to its design profile should be estimated. Replacement of this volume of material would not be eligible for funding under Section 5. Information should also be presented on the nourishment history of the project, including the estimated nourishment cycle and the date of the last nourishment.

(b) Remaining Protection. The degree of erosion and storm surge protection remaining is an important factor in assessing the degree of restoration required. The severity of the event that would cause significant damages with the remaining project should be described. An assessment of the remaining property subject to damage should also be presented.

(c) Storm Season. Section 5 funds are to be used to restore adequate functioning of a project to provide protection against future storms. Therefore, an assessment of the risk of a subsequent damaging storm is an important consideration in the use of emergency funds and

should be discussed in the Project Information Report. Damaging coastal storms are more frequent during certain seasons (e.g., the late summer and early fall hurricane season on the Gulf and east coast). The need for immediate emergency action and the extent of immediate restoration required will be influenced by whether the storm causing the damage occurs early or late in the storm season. If it is late in the storm season, and the risk of a subsequent storm in the current season is low, there is no need for emergency action under Section 5. In such cases, the project should be renourished under the terms of the PCA.

(4) Combined Emergency and Periodic Nourishment. In some cases the non-Federal sponsor may wish to fully restore a beach fill project where only a partial restoration is justified under the provisions of Section 5. In these cases, a cost allocation recommendation for the complete restoration project will be made between emergency response under Section 5 (100 percent Federal cost) and periodic nourishment under the terms of the PCA. This recommended cost allocation and its rationale will be presented in the Project Information Report.